

IN THE CLAIMS

Claims 1-58 (cancelled)

Claim 59 (new): A fusion protein comprising a selenocysteine-containing peptide fused to a surface protein displayed on an amplifiable genetic particle.

Claim 60 (new): A fusion protein of claim 59, wherein the amplifiable genetic particle is selected from a phage, a virus, a cell or a spore.

Claim 61 (new): A fusion protein according to claim 59, wherein the selenocysteine-containing peptide is a recombinant protein such that the selenocysteine is incorporated at a specific, unique site.

Claim 62 (new): A fusion protein according to claim 59, wherein the covalent linkage between the selenocysteine-containing peptide and the surface protein is a peptide bond.

Claim 63 (new): A fusion protein according to claim 59, wherein the peptide is expressed by a DNA having a TGA codon and a selenocysteine insertion sequence.

Claim 64 (new): A fusion protein according to claim 63, wherein the selenocysteine insertion sequence is located downstream of the TGA codon.

Claim 65 (withdrawn): A fusion protein according to claim 61, wherein the selenocysteine is flanked on either or both sides by one or more randomized amino acid.

Claim 66 (withdrawn): A fusion protein according to claim 59, wherein the selenocysteine in the peptide is positioned adjacent to one side of one or more randomized amino acids, the one or more randomized amino acids being flanked on a second side by a cysteine.

Claim 67 (new): A fusion protein according to claim 63, wherein the selenocysteine insertion sequence is obtained from a amplifiable genetic particle selected from the group consisting of eubacteria, eukarya and archea.

Claim 68 (withdrawn): A fusion protein according to claim 59, wherein the selenocysteine in the peptide is capable of chemical derivatization of the selenol group.

Claim 69 (withdrawn): A fusion protein according to claim 68, wherein the chemical derivatization results from a nucleophilic substitution reaction.

Claim 70 (withdrawn): A fusion protein according to claim 68, wherein the chemical derivatization results from an oxidation reaction.

Claim 71 (withdrawn): A fusion protein according to claim 68, wherein the chemical derivatization results from a metal coordination reaction.

Claim 72 (withdrawn): A fusion protein according to claim 68, wherein a product of chemical derivatization of the selenocysteine in the peptide is a chemical functionality selected from the group consisting of enzyme substrates, enzyme cofactors, enzyme inhibitors, receptor ligands and cytotoxic agents.

Claim 73 (withdrawn): A fusion protein according to claim 61, wherein the selenocysteine-containing peptide further comprises an enzyme substrate or is modified at the selenocysteine to form an enzyme substrate.

Claim 74 (withdrawn): A fusion protein according to claim 73, wherein the enzyme substrate forms a reaction product in the presence of an enzyme and the enzyme substrate is located on the surface of the amplifiable genetic particle.

Claim 75 (withdrawn): A fusion protein of claim 74, wherein the reaction product is capable of binding to an affinity substrate.

Claim 76 (withdrawn): A fusion protein, according to claim 74, wherein the recombinant protein is selected from a library of variants of a single enzyme, wherein each variant contains one or more amino acid substitutions relative to the native enzyme.

Claim 77 (withdrawn): A fusion protein according to claim 74, wherein the recombinant protein is selected from an expressed c-DNA library.